



Dear ,

In October's newsletter we'll tell you about several interesting upcoming events and invite you to become part of the Quantum Flagship booth at Mobile World Congress 2024.

We will also share news about the most recent set of KPIs for Quantum Technologies (QT) in Europe and a report on QT Public Policies across European member states.

There is also the Quantum Playlist, a reliable online tool for finding high-quality content and learning materials on QT.

On top of that we have fantastic news from the quantum ecosystem in Spain and from one of our Quantum Flagship projects.

If you would like to inform the quantum community on any QT activities or events within your national or regional community, or provide feedback to the QT newsletter, please get in touch at [newsletter@qt.eu](mailto:newsletter@qt.eu).

Best regards,  
The Quantum Flagship Coordination Team

- **[Workshop: Quantum Chips in the Chips Act](#)**
- **[4th meeting of CEN/CLC/JTC 22 Quantum Technologies](#)**
- **[Call to participate in Mobile World Congress 2024](#)**
- **[KPIs for Quantum Technologies in Europe](#)**
- **[Quantum Playlist now available](#)**
- **[European QT Public Policies report published](#)**
- **[Awarding engagement in equity, diversity and inclusion](#)**
- **[High-fidelity gates towards error correction with neutral atoms](#)**
- **[Conference on Quantum Technologies in Europe](#)**
- **[Quantum computing and communication initiatives in Spain](#)**

## Quantum Flagship event news

### Workshop: Quantum Chips in the Chips Act

On behalf of the European Commission, we invite you to the second expert workshop on Quantum Chips in the Chips Act. The workshop will take place **online** on **27 October 2023**, 09.00-13.00 CET.

Following the first workshop in April and further expert meetings, we would like to briefly present the state of the art and address urgent open questions about possible future pilot line implementations and the planned design platform. Hearing industry's perspective on these will be a particularly important factor in specifying actions for a successful implementation.

Participation is open to representatives of industry and academic research from the EU specifically involved in the development and industrialisation of quantum chips.

[REGISTER NOW](#)

## Quantum Flagship event news

### 4th meeting of CEN/CLC/JTC 22 Quantum Technologies

Are you a quantum technology expert? Are you developing or industrialising quantum components, quantum metrology, quantum computing or quantum communication? Or do you have a vision for Europe's standardisation strategy for quantum technologies? Then you may be interested to know that the CEN and CENELEC Joint Technical Committee 22 (CEN/CLC/JTC 22) is developing standards relevant to quantum technologies.

European experts are invited to contact their National Standards Body (NSB) and contribute to this standardisation.

The 4th meeting of CEN/CLC/JTC 22 QT, taking place on **20-22 November 2023**, will be co-organised by UNI (the Italian NSB) and INRIM, and hosted at **INRIM (Torino, Italy)**, with the support of the [European Metrology Network for Quantum Technologies \(EMN-Q\)](#).

Register for this meeting with your NSB.

[READ MORE](#)

## Call to participate in Mobile World Congress 2024



The Quantum Flagship will be at Mobile World Congress 2024 (MWC) in **Barcelona** on **26-29 February 2024**. In 2023, MWC drew over 60,000 visitors from 160+ countries, eager to explore and invest in innovative technologies. The European Quantum Zone, led by the Quantum Flagship, showcased 8 companies and 3 projects, and hosted Quantum Coffee Talks, a platform to present products and engage with the audience, attracting visitors like EU Commissioner Thierry Breton.

This is a call to the EU quantum community, especially companies and quantum-related FPAs in mobile ecosystem areas. If you'd like to join the Quantum Flagship booth and have a demonstrator in communications, sensing, computing, or AI, please contact us at [info@qt.eu](mailto:info@qt.eu) by **30 November 2023**. While the Quantum Flagship provides space and some MWC passes, please note that travel expenses are not covered, and participants share the exhibition costs.

[CONTACT US](#)

### News from the Quantum Flagship

## KPIs for Quantum Technologies in Europe

Annual Key Performance Indicator (KPI) monitoring is crucial for identifying areas requiring focus and for fostering the overall growth of the European quantum

ecosystem.

In 2021, the Quantum Flagship set ambitious KPIs to monitor quantum technology progress in Europe. The second set of KPI values along with their respective target values for 2030 are now available.

The KPI values are collected via surveys of the Flagship's Strategic Advisory Board, Quantum Coordination Board and the European Quantum Industry Consortium. The newest results reveal the European quantum community's progress, surpassing targets in various areas.

[READ MORE](#)

---

## News from the Quantum Flagship

### Quantum Playlist now available

Finding high-quality content on QT online can be challenging. Therefore, a reliable quantum playlist has been curated. The Flagship's Quantum Playlist is now hosted on the European Quantum Readiness Center website.

Currently, it offers 73 videos organised into four main categories, aligned with the [European competence framework for quantum technology](#). Each video is accompanied by a legend indicating its level, language, duration, and relevance to the European competence framework.

This playlist is an evolving project, open to new video additions. If you know of a video that should be included, please [share it with us](#).

[VIEW PLAYLIST](#)

---

## News from the Quantum Flagship

### European QT Public Policies report published

A new report "Quantum Technologies Public Policies Report in Europe, 2023 " has been published by [QuantERA](#).

This is the second edition of the report, mapping quantum technology program developments. It provides insights into European policies and funding instruments, serving as a vital reference for policymakers shaping quantum tech's future at national and European levels.

QuantERA, a research funding programme, strives to leverage transnational cooperation in QT and continuously monitors the evolving landscape of national quantum programmes and approaches.

The report is a collaborative effort by QuantERA consortium partners, supported by the European Commission and the Flagship, summarising findings from an inventory across 31 European Union member states and associated countries.

[READ MORE](#)

## News from the Quantum Flagship

### Awarding engagement in equity, diversity and inclusion

Quantum Flagship successfully carried out a call for proposals for the central session on Equity, Diversity and Inclusion (EDI) at the [European Quantum Technology Conference 2023](#).

[Science Melting Pot](#) was awarded with €3,000 for the organisation of the engaging session "Diversity Diaries: a theater show", which took place on 19 October 2023 in the Plenary Hall. The session covered the general state of equity, diversity and inclusion and explored the role of bias in the issues occurring regarding EDI. Using interactive theatre pieces, participants were empowered to recognise and remediate microaggressions and biased behaviour.

[CNR-INO](#) was awarded with a prize for their commitment to equity, diversity and inclusion in their institutions and networks during the plenary session "Assuring a Successful European QT Ecosystem" on 19 October 2023.

**We warmly congratulate the winners on their success!**

## News from Quantum Flagship projects

### EuRyQa project news

#### High-fidelity gates towards error correction with neutral atoms

Researchers in Strasbourg, Princeton and Yale have achieved the demonstration of high-fidelity one- and two-qubit gates with neutral ytterbium atoms, and of a way to identify when errors occur in quantum computers more easily than ever before.

The family of two-qubit gates has been invented by Sven Jandura and Guido Pupillo at the University of Strasbourg within the Quantum Flagship project [EuRyQa](#) and the MSCA project [MOQS](#). Qubits are encoded into metastable states of the atoms, which facilitates the detection of errors in mid-circuit measurements and their conversion



into erasure errors that are easier to deal with in the context of fault-tolerant quantum computing. The results were published in *Nature*.

[READ MORE](#)

## News from the community

QuantERA event news

### Conference on Quantum Technologies in Europe



The Conference on Quantum Technologies in Europe, organized by AEI in collaboration with QuantERA, will take place in **Madrid**, Spain, on **22-23 November 2023** as part of the Spanish EU Presidency.

The event addresses quantum tech development challenges and European policy alignment to advance scientific results for societal benefits and economic welfare. It offers a unique platform for QT researchers, managers and practitioners to share insights, address challenges, and foster collaboration in this fast-evolving field.

Register now until **2 November 2023**.

[READ MORE](#)

News from Spain

# Quantum computing and communication initiatives in Spain

Fourteen new institutions have joined [Quantum Spain](#), an initiative with the primary goal of establishing a robust quantum computing ecosystem in Spain, leveraging local researchers' expertise.

These entities will primarily focus on developing new quantum algorithms, emphasizing the synergy between quantum computing and AI, with quantum machine learning at the forefront. They will also contribute to education and dissemination efforts, particularly through the [TalentQ program](#), aimed at nurturing Spanish quantum talent. This program, led by the University of Santiago de Compostela, includes various activities such as online and in-person courses.

[READ MORE](#)

Meanwhile, the [Complementary Quantum Communications Plan](#) had its inaugural meeting at the Polytechnic University of Madrid (UPM) on 19-21 September 2023.

The plan's overarching goal is to establish a secure quantum communication network within the European Union, bolstering cybersecurity for the economy and society. The initiative receives €73 million of national and regional funding.

[READ MORE](#)



Funded by the European Commission

## Responsibility

This newsletter is operated by the project “QUCATS – the Quantum Flagship Coordination and Support Action”, which is funded by the European Commission.

Responsible for the content of this newsletter is:

VDI Technologiezentrum GmbH  
VDI-Platz 1  
D-40468 Düsseldorf  
Germany

Email: [info@qt.eu](mailto:info@qt.eu)

[Unsubscribe](#)